METHOD OF PRODUCING A SILVER ALLOY PART AND ALLOY USED FOR SAME

ABSTRACT

The invention relates to a method of producing a part made of a silver-based alloy. It consists in taking an initial alloy containing silver and at least one metal soluble in silver at contents of between 0.04 and 4 at% and capable of forming a stable oxide at high temperature, and then carrying out in succession the following operations:

- oxygenation of the initial alloy so as to dissolve oxygen into the silver that it contains;
- partial oxidation of the soluble metal so as to form precipitate particles that prevent the alloy grains from coarsening; and
- complete oxidation, on at least an outer layer, of the soluble metal into an oxide stable at high temperature.

The invention also relates to a silver-based alloy that contains at least one metal which is soluble in silver and capable of forming an oxide stable at high temperature and which, by internal oxidation, hardens it, while still providing a final grain size of less than 20µm.